

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A digital signal processor comprising:
an instruction memory, a central arithmetic unit, a register, a controller, an event control unit and input/output devices;
the instruction memory is arranged to include one or more operation codes including logical operations, ~~time performance constraints~~ a delay operand and events;
the controller is arranged to initiate operation of the event control unit in response to one of the one or more operation codes, suspend all further processing of the ~~time performance constraints~~ delay operand after initiating operations in an event control unit and resume processing of ~~the time performance constraints~~ when advised by the event control unit; and
the event control unit is arranged to recognize an event and in response to the detection of the event execute a processing operation and initiate or resume processing of the controller upon completion of the processing operation, wherein the event is an input signal or a completion of processing from a previous event and the operation code comprises an event operand arranged to identify the input signal or previous event to initiate or resume processing of the event control unit and ~~thea delay operand comprising those time performance constraints~~ executed by a counter in the event control unit, wherein the delay operand defines a time interval to elapse between the event and completion of the processing operation and a stop condition for the counter.
2. (Currently Amended) A ~~The~~ digital signal processor in accordance with claim 1, wherein the event is detected by the event control unit.
3. (Currently Amended) A ~~The~~ digital signal processor in accordance with claim 2, wherein the event control unit is arranged to detect input signals.

4. (Currently Amended) ~~A-~~The digital signal processor in accordance with claim 2, wherein a further event is recognized as a completion of the processing carried out as a consequence of the event.
5. (Currently Amended) ~~A-~~The digital signal processor in accordance with claim 1, wherein the event is recognized as a completion of the processing carried out as a consequence of a previous event.
6. (Currently Amended) ~~A-~~The digital signal processor in accordance with claim 1, wherein the event control unit includes a signal memory arranged to store and extract data under control of the event control unit.
7. (Currently Amended) ~~A-~~The digital signal processor in accordance with claim 6, wherein the signal memory is a vector memory.

Claims 8 and 9 (Cancelled)

10. (Currently Amended) ~~A-~~The digital signal processor in accordance with claim 1, including two or more event control units arranged to work independently from each other.